## GHARP.



Macintosh

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## How to Use the Online Manual

This Online Manual provides instruction for the operation of your new printer. It is designed to assist you in the operation of the Online Manual and provide you with all relevant information.
For more information about computers, operating systems and Acrobat Reader, please refer to the relevant manual or help file.

## How to Control the Online Manual

Takes you back page by page. To return to the previously viewed page from the page displayed by clicking a reference topic, click the ( ) button on the menu bar of the Acrobat Reader. Click this button to display the Index of the Online Manual. From the Index you can jump to various pages.
Click this button to display the Table of Contents of the Online Manual. From the Table of Contents you can jump to various pages.

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| Online Manual | Printer Properties | Print | Maintenance |

## Following links

Links can connect parts of a document to other parts for further information. In this document, green colored letters are linked area. To follow a link, select the hand tool ( $\left.\S^{\text {th }}\right)$, a zoom tool, or a selection tool. Position the pointer over the linked area on the page until the pointer changes to a hand with a pointing finger ( $\mathrm{s}_{\mathrm{f}}^{\mathrm{m}} \mathrm{m}$ ). Then click the link.

## How to Print Out the Online Manual

In order to print out a hard copy of the Online Manual for your reference, go to Acrobat Reader, click the "File" menu, and select "Print". After specifying the printer setting, click the "Print" button to print.

In this online manual, screen images and operating procedures are mainly for Mac OS 9. With other versions of Mac OS, some screen images may be different from those in this manual.
In this manual, the contents of each screen image are those of $\mathrm{AJ}-1800$. Please refer to the corresponding contents when using AJ-2000.


## Outline of the Printer Driver

## What is the Printer Driver?

A printer driver is a program designed to convert print data from any application into data understandable by the printer so that the printer can quickly and efficiently print out the data.

## Starting the Printer Driver

The printer driver setup screen includes the "Paper Settings" dialog box and "Print" dialog box. On the "Paper Settings" dialog box, you can specify values related to paper including paper size. Open the dialogs by following the steps shown below.
Follow the steps shown below to open the printer driver setup screen through SimpleText. First, activate SimpleText.

Go to "File" menu in SimpleText, and select "Page Setup".
A "Paper Settings" dialog box of the printer driver will appear.


Reference:"Paper Settings" Dialog Box

2 After setting preferences on the "Paper Settings" dialog box, select "Print" from "File" menu.
A "Print" dialog box of the printer driver will appear. To switch the dialog box, click the ( $\bar{\theta}$ ) button.


You can jump to the detailed information by clicking each menu on the screen above.

## Copies

Set the number of copies between 1-50.

| When either of "Banner |
| :--- |
| A4", or "Banner Letter" is |
| selected for "Paper Size", |
| you cannot specify any |
| value for "Copies" |
| setting. |

Check button
Specify the pages to be printed here. To print all the pages, select "All". To select some of the pages, specify the first and the last page to be printed.
Allows you to select one


Click this option to activate/deactivate each function.
"Help" button
The information on the currently open dialog box will appear by clicking this button.


The following dialog box will appear when you select "Page Setup" from "File" menu of your application. You have to specify preferences on this dialog box before printing.


## Paper Size

Select an appropriate paper size for your document from menu.

| Paper | Size |
| :---: | :---: |
| Ledger | $11^{\prime \prime} \times 17^{\prime \prime}$ |
| Letter | 8.5 " $\times 11^{\prime \prime}$ |
| Legal | 8.5 " $\times 14$ " |
| Executive | 7.25" x 10.5" |
| A3 | $297 \mathrm{~mm} \times 420 \mathrm{~mm}$ |
| A4 | $210 \mathrm{~mm} \times 297 \mathrm{~mm}$ |
| A5 | $148 \mathrm{~mm} \times 210 \mathrm{~mm}$ |
| B4 | $257 \mathrm{~mm} \times 364 \mathrm{~mm}$ |
| B5 | $182 \mathrm{~mm} \times 257 \mathrm{~mm}$ |
| COM10 | 4.125 " 9.5 " |
| DL | $110 \mathrm{~mm} \times 220 \mathrm{~mm}$ |
| C6 | $114 \mathrm{~mm} \times 162 \mathrm{~mm}$ |
| A6 | $105 \mathrm{~mm} \times 148 \mathrm{~mm}$ |
| Invitation A2 | 4.375 " $\times 5.75{ }^{\prime \prime}$ |
| Index card 5" x 8" | 5" x 8" |
| Index card 4" $\times 6$ 6" | 4" $\times 6$ " |
| Index card 3" x 5" | 3" $\times 5$ " |
| Japanese Hagaki | $100 \mathrm{~mm} \times 148 \mathrm{~mm}$ |
| Banner Letter | 8.5 " $\times 11$ " |
| Banner A4 | $210 \mathrm{~mm} \times 297 \mathrm{~mm}$ |
| (Custom) | $\begin{aligned} & \text { Min. : 3.00" } \times 5.00^{\prime \prime}(76.2 \mathrm{~mm} \times 127.0 \mathrm{~mm}) \\ & \text { Max. : } 11.70^{\prime \prime} \times 17.00^{\prime \prime}(297.2 \mathrm{~mm} \times 431.8 \mathrm{~mm}) \end{aligned}$ |

- The document size must be smaller than the selected (loaded) paper. If not, printing will occur over the edge of the paper causing the machine to become internally dirty.
- Ledger, A3, or B4 sized paper cannot be used on the printer. To print these image sizes select "Fit To Page" setting by checking the box, or reduce the image size by specifying the ratio at "Zoom[\%]" setting.
"N-Up Printing", "Fit To Page", and "Zoom[\%]" settings are not available when you select "COM10", "DL", "C6", "Invitation A2", "Japanese Hagaki", "Banner Letter", or "Banner A4" sized paper.


## Custom Paper

When "(Custom)" is selected for "Paper Size" setting, the following dialog box will appear, and you can specify the desired paper size.


Width
Enter a number to customize the width to the custom paper you wish to use.

## Length

Enter a number to customize the length to the custom paper you wish to use.
millimeters / inches
Select the units of measurement for paper size settings: either "millimeters" or "inches".


Paper sized larger than 8.5" x 14" (215.9mm x 355.6 mm ) cannot be used in this printer. You can print the image by using the reduction feature of the "Zoom[\%]" setting.


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## Orientation

Set the orientation for your documents either to portrait or landscape.

A This option prints your document in portrait format.


This option prints your document in landscape format.


If "Com10", "DL", "C6", or "Invitation A2" is selected for the "Paper Size" and set to landscape, the paper will be output in the orientation shown in the right illustration.


## Zoom[\%]

Allows you to reduce or enlarge the size of the print from $25 \%$ to $400 \%$ in $1 \%$ increments.

```
        If "Fit To Page" is checked, you cannot specify any value for "Zoom[\%]" settings.
```

"100\%" button
Click to return to $100 \%$ (default setting).

## "Main" Menu Settings (part 1)

On this dialog box, you can specify the values for "N-Up Printing" and paper output order.


On the above screen, click on options shown in the green boxes to make additional changes.

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## "Main" Menu Settings (part 2)

## N-Up Printing

Set this feature to place multiple reduced pages onto a single page. Select the "2-Up" option to copy two pages or the "4- Up" option to copy four pages onto a single printed page.


## Order

Allows you to change the print out order of your documents.

## Collate

When multiple copies are printed, this setting places each copy in numerical order.
Reverse Order
Check this box to print documents in reverse order.
For more detailed information, refer to the table below.
Example: When printing out two copies of a three-page document.

| Collate | Reverse Order | Output Result |
| :---: | :---: | :---: |
| $\square$ | $\square$ | 112233 |
| $\square$ | $\square$ | 12312 |
| $\square$ | $\square$ | 332211 |
| $\square$ | $\square$ | 32132 |


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## "Paper" Menu Settings (part 1)

On this dialog box, you can specify the values for paper types or trays.
Reference:Guaranteed area and printable area


On the above screen, click on options shown in the green boxes to make additional changes.


## Paper Selection

Select "Tray" or "Bypass" for your print job.
Tray
Paper is fed to the printer from the paper tray.


If the "Tray" is selected from this menu and paper is placed in the bypass tray, the paper in the bypass tray will be fed first, and then paper will be fed from the paper tray.

## Bypass

Paper will be fed to the printer from the bypass tray. Only one sheet can be loaded into the bypass tray. To load paper into the bypass, place the paper into the tray against the guide and press the paper button.

When printing one page:
Load paper into the bypass then start printing from your computer. If paper is not loaded before printing is started, the paper lamp on the printer will blink and the message "Out of paper on bypass" will appear on the screen of the computer.

When printing more than one page:
Repeat as above for each page.
Make sure to insert "Banner Letter" and "Banner A4" through the bypass tray. Max. 5 sheets of banner paper can be set to the bypass tray. Make sure that your application supports Banners when you intend to print onto Banners.

## Media Type

Select the type of paper to be used. Select from "Plain", "Coated", "Photo", "Transparency", "T-shirt transfer", and "Card Stock". Insert the paper that was selected into the tray.
For more information on various paper types, refer to the following table.

| Media Type | Description | Media Usage |
| :--- | :--- | :--- |
| Plain | Normal office paper <br> (copier paper and high <br> quality paper) | Corporate documents |
| Coated | The print side of coated <br> paper is whiter. | Graphics, Images |
| Photo | The print side of photo paper <br> is glossy. | Photographs |
| Transparency | Overhead presentation on <br> clear film. The print side of <br> transparency film is rougher. | Overhead <br> presentations |
| T-shirt transfer | This media is to be <br> transferred to cloth materials <br> by an iron. | T-shirt, Place mat |
| Card Stock | Thick plain paper | Card printing |

Be sure to use only Sharp recommended OHP films when you select "Transparency".

- If you select "T-shirt transfer", the original image will be reversed on the printed media to make a proper image on the T -shirt.
- When "Card Stock" is selected, be sure to turn the paper knob to ( $\square$ ) direction to feed the thicker card stock.



## Output Paper

Select the size of the paper loaded in the printer from the list. To print your image data and to fit it to the paper size selected, check the "Fit To Page" of "Paper Settings" dialog box, and then select the paper size.
By selecting "(Custom)" on the list, you can specify a paper size that is not listed.

## Guaranteed area and printable area

This printer can print onto the following area of the paper. It is recommended that you specify margins from your application to fit within the quality guaranteed area.

## Quality guaranteed area

Guaranteed area is inside 0.75 " (19mm) from the top / bottom edge of the paper, and 0.39 " ( 10 mm ) from the right / left edge of the paper.

## Printable area

The void area of the printer driver is 0.12 " ( 3 mm ) from the paper edges. The print quality may be degraded outside the guaranteed area according to the contents of your document.


Set your color and quality preferences for printing using this screen.

This option sets printing speed and quality. You can trade off speed for quality. "Draft" is the fastest and lowest quality, "Best" is the slowest and best quality.

| Draft | Select this option when you want to <br> print text data with high speed. If you <br> print graphics, illustrations, or lines with <br> this option, the print quality is low. |
| :--- | :--- |
| Sharp Special | Select this option when you want to <br> print a document containing graphics or <br> illustrations with high speed. This <br> option provides a little rougher print <br> quality than "Normal" or "Best". |
| Normal | This option offers you normal print <br> quality with normal print speed. |
| Best | Select this option when you want to get <br> high print quality for photographs or <br> images. |

* The print quality also depends on the specified (loaded) paper type.

[^0] medium to move through the machine at a uniform speed. As a result, the time to make a print in this mode will be approximately the same for all files regardless of the area being printed. This is also true for "Normal" mode printing on photo paper.

Set printer output preferences to color or grayscale.

On the above screen, click on options shown in the green boxes to make additional changes.

To provide the highest possible print quality when printing in the "Best" mode, a special printing technique is used which requires the print

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## "Output Quality" Dialog Box

Set the color matching as well as the brightness, contrast and color balance of an image.

Check your color image preferences using this screen.

Allows you to select the Color Management System.
The Color Management System enables you to adjust the image color on your display to the result of print job.

## SHARP Color matching

Select this option to utilize SHARP's original Color Management System.

## ColorSync

Select this option to utilize Macintosh standard Color Management System.


Set the brightness, contrast and color balance level of your print job here.


Directly enter the figure or move the scroll bar.

Returns all user modified settings back to default settings of this dialog box.
Color matching: SHARP Color matching Brightness: 50\%
Contrast: 50\%
Saturation: 50\%
Red: 50\%
Green: 50\%
Blue: 50\%

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The dialog box shown below will appear when you select "Watermark" from the menu and then click the "Settings" button. Use this screen to set watermarks.


## "Watermark" Menu Settings (part 2)

## Text

To create your own Watermark, type in the desired text overwriting the original characters, and then click the "Add" button.

## "Edit Fonts" button

To adjust the font style of a watermark, click this button to display the "Edit Fonts" dialog box.

Select the desired font type.


You can select Italic, Bold, and Bold
Italic for your font style.

## On First Page Only

Check this box to ensure a watermark is printed only on the first page of the document. By leaving this box unchecked, the watermark will appear on every page of the printed document.

## "Add" button

Enter your text over the currently displayed text and click this button to add a new watermark.
After selecting a watermark from the menu and setting its size and angle, click this button to add new changes.

## "Update" button

Select your original watermark from the menu. After adjusting the size and angle to suit your preferences, click the "Update" button to save.


You cannot save changes to the size and angle of a default watermark using this button. Save all new changes using the "Add" button.
"Delete" button
To remove your original watermark from the menu, select it and click this button.

Default watermarks cannot be deleted.


Information about the printer driver version is shown on this screen.

"About" button
Click this button to display the "About" dialog box for information on the driver name and version.

On this dialog box, you can control print head maintenance as well as check the amount of the remaining ink.


## Remaining ink indicator window

This window indicates the level of ink remaining in the printer. A message appears when the ink tank is nearly empty. Prepare a new ink tank and replace it when required.
Reference: Changing Ink Tank

## Auto head cleaning

Click the "Start" button to initiate cleaning of the print head. After the dialog box for selecting which print head to clean appears, click the "OK" button. Reference: Cleaning the Print Head

## Test print head

Click the "Start" button to print a test page which lets you check print quality. After the confirmation dialog box appears, click the "Print" button. Reference: Test Print Head

## Print alignment patterns

Click the "Start" button to print a test chart to align the print head. After the confirmation dialog box appears, click the "Print" button. The "Align print head" dialog box opens and a test chart is printed.
Reference: Aligning the Print Head

## Note <br> When cleaning and aligning the print head, the printer cannot perform other operations.



The flow chart shown below provides printing overview.
Reference:For more information on printing, refer to Basic Printing.
Select "AJ-1800/2000" through the Chooser.
Reference: Using the Chooser

Prepare the document you intend to print

## Load paper

Reference: For loading paper, refer to the "LOADING PAPER" in the Setup Guide and Operation Manual.

Specify preferences for paper through your application.
Reference: "Paper Settings" Dialog Box


## Using the Chooser

To print with this printer, you need to connect this printer and your computer through the Chooser.
Once the preferences are specified through the Chooser, the selected values will be stored. If you use this machine alone as

1
Select "Chooser" from the Apple menu.

|  | File Edit View Spe |
| :---: | :---: |
| About This Computer |  |
| Apple System Profiler Calculator |  |
|  | Chooser |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Select the "AJ-1800/2000" printer icon.

Make sure that "AJ-1800" or "AJ-2000" appears in the "Connect To" box.


## 3 Close the Chooser.

Click here.



## Basic Printing (part 1)

This is a printing example using SimpleText to print a document onto letter size paper.

1 Start SimpleText, make a new file, and enter the text you intend to print.
2
Select "Page Setup" from the application's "File" menu.
The "Paper Settings" dialog box will open.


3 Select "Letter" for the "Paper Size" setting, and then select portrait for the "Orientation" setting. The following dialog shows the specified values.
 dialog box.


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## Basic Printing (part 2)

Select "Print" from the "File" menu of SimpleText.
To print a single copy of a document, confirm "1" in the "Copies" box.


6 Click the "Print" button.


Printing starts according to your preferences.

## Printing a Watermark

This feature allows you to print a Watermark on your document (Ex. "CONFIDENTIAL"). Select "Print" from the "File" menu of your application, switch the menu to "Watermark", and then click the "Settings" button.

## How to Print a Watermark

Select the desired Watermark, and then click the "OK" button. (Ex. In the illustration below, "CONFIDENTIAL" is selected.)

Reference:See the "Watermark" Menu Settings for details on how to create your own watermarks.


## Print sample



## Enlarge/Reduce the Printed Image

You can enlarge or reduce the size of your document from $25 \%$ to $400 \%$ in $1 \%$ increments.
To use this function, select "Page Setup" from the "File" menu of your application, and then type the value into the "Zoom [\%]" setting box.

Reference:See the "Paper Settings" Dialog Box for details on "Zoom[\%]" option.

## Automatic Zooming to the Loaded Paper

This printer driver can adjust the zoom ratio for printing according to the paper loaded in the printer.
To use this function, select "Page Setup" from the "File" menu of the application, and then activate this function by checking the "Fit To Page" setting. Then select "Print" from your application, switch the menu to "Paper", and then select the size of the paper specified for "Output Paper" setting.

Example: Printing a Letter size document on Index card 3" x 5" size paper.


## Printing Multiple Pages on One Page

This feature allows you to print two or four document pages onto a single page. To use this feature, select "Print" from the "File" menu of your application, and then specify the desired value at " N -Up Printing" of the "Main" menu.

Reference:See the "Main" Menu Settings for details on the "N-Up Printing" option.

For "2-Up" printing


## "2-Up" Printing

"2-Up" printing places two pages of the document stack onto a single printed page.


For "4-Up" printing


## "4-Up" Printing

"4-Up" printing places four pages of the document stack onto a single printed page.


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## Printing a Photograph

To ensure pictures taken with a digital camera are printed clearly, use quality photo paper and follow the instructions below.

When loading photo paper into the paper tray, insert the glossy side face down. When loading photo paper into the bypass tray,
Note insert the glossy side face up.

1 Select "Print" from the "File" menu of your application, switch the menu to "Paper", and then select "Photo" for "Media Type".


2 Switch the menu to "Advanced" to make sure that "Color" is selected for "Output Type" setting.

3 Set the "Print Quality" option to "Best".
The result of setting the preferences as shown from Step 2 to Step 3 are displayed below.


If required, you may adjust the image or color balance through clicking the "Output Quality" button. For details, view the "Output Quality" Dialog Box.


## Background Printing

Background printing enables you to execute other operations on your Macintosh while printing.

## To Setup Background Printing

To setup background printing, select "Chooser" from Apple menu, select "AJ-1800/2000" printer icon in the box, and then check the "On" radio button for "Background Print".


Background printing may prevent your mouse cursor from smooth operation or take a longer time for printing.


## Print Monitor

You can check the progress, file names, and page numbers of your print job on the print monitor after the printer receives the print data. The contents on the print monitor vary according to the setting for background printing.
Reference:Background Printing

## When background printing is "Off"

When background printing is "Off", the dialog box shown below will appear to show the progress of your print job. To cancel a print job, press (圈) + [.](Shortcut).

```
spooling
Pages 1
```



```
Interrupt current process by pressing Command(%) and "."
```


## When background printing is "On"

When you start printing while background printing is "On", the dialog box shown below will appear to show the progress of your print job. To show this window, select "AJ-1800/2000 Monitor" from the Application menu located at the upper right of the screen.


Reference:Print Monitor Functions

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You can check the progress of your print job on the window shown below if you start printing with the "Background Print" On.

## Document Name

Displays the name of the active print job.


【I Holds the current print job or the waiting print job.


Executes the suspended print job.
Changes the order for the waiting jobs. When selecting one of the waiting job and clicking this button,
a dialog box will appear. To execute the selected print job as soon as possible, check "Urgent". To specify the time to print, check "At Time" and then specify the desired time and date for printing.
而 Deletes the current print job or the selected waiting job.


## Time to Change the Ink Tank

In the following cases, select "Print" from the "File" menu of your application, and then click the "Maintenance" button (四) to find the ink tank to be replaced.

Reference:Changing Ink Tank

## The ink lamp on the printer blinks fast, and the "Out of ink" error message is displayed.

When the remaining ink is empty, the ink lamp on the printer blinks rapidly. If the "Out of ink" error message appears, more than two of the ink tanks are out of ink. Check the ink indicators to find the empty ones, and then immediately replace them with new ones. If the error message indicates the color of the empty ink tank (see sample message below), replace the ink tank indicated in the message.
"Out of ink - xxxx" - One of the ink colors including cyan, yellow, magenta, and black is displayed as "xxxx" in this message.


## The "Ink low" error message is displayed.

If the "Ink low" error message appears, more than two of the ink tanks are near empty. Check the ink indicators to find the ones which are near empty, and replace them with new ones as soon as possible. If the error message indicates the color of the near-empty ink tank (see sample message below), replace the ink tank indicated in the message.
"Ink low - xxxx" - One of the ink colors including cyan, yellow, magenta, and black is displayed as "xxxx" in this message.


## Changing Ink Tank (part 1)

Ensure the printer is turned on before following the steps below on how to change the ink tank.

1 Open the front cover.
The carriage will automatically move to the center position.


Do not put your hands into the printer until the carriage stops at the center position. Doing so may hurt your hands. Do not try to move the carriage manually by force, you may damage the printer.

2
Remove the old ink tank.
While pressing the tab forward, remove the ink tank.


Example for the yellow ink tank

## Note <br> Do not lift the print head latch to replace the ink tank.

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## Changing Ink Tank (part 2)

3 Unpack the ink tank from its protective wrapping and slowly remove the tape.


Example for the yellow ink tank


- Hold the tank upright when removing the tape. Do not touch the uncovered opening on the ink tank, as ink will get on your hands.
- Ensure that there are no pieces of tape remaining on the ink tank.

Turn the ink upside down, and then immediately insert it to the print head of corresponding number.
 print head number.




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## Changing Ink Tank (part 3)

## 5 Close the front cover.

The carriage will return to its home position, and the ink will be fed to the print head.


6 Confirm the ink lamp is not blinking.


If the ink lamp continues to blink, open the front cover and confirm that all the ink tanks are properly inserted.

## 7

Print a test page to check if the unit prints properly. Select "Print" from the "File" menu of your application. On the dialog box, click the "Maintenance" button, and then click the "Start" button of "Test print head" to print the test page.
If print quality is poor, return to step 4 and follow the procedures once more.


If print quality is poor after correctly inserting the ink tank, clean the Print Head.

If you are not satisfied with the print quality, print a test page following the steps shown below.

1 Make sure that Letter sized paper is set in the tray.

## Select "Print" from the "File" menu of your

 application, and then click the "Maintenance" button (凅).3 Click the "Start" button of "Test print head".


4 Click the "Print" button.
A test page will be printed.


5 Check the result of the test page.
If the print quality is poor, go to the next step.
6 Click the "Start" button of "Auto head cleaning" to clean the print heads.
If you cannot get a good result printing a test page even after cleaning the print head five times, change the print head. Reference:Cleaning the Print Head

## 7 Change the print head.

Replace the black print head if white lines appear in the black portion of your test page. If you find white lines in portions of colors except black, replace the color print head.
Reference:Changing the Print Head


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## Cleaning the Print Head

If the test page from "Test print head" is faint or uneven, confirm that you are printing on the correct side of the paper, and the driver setting and ink levels are correct. If these items are OK, then follow the steps below to clean the print head.

Select "Print" from the "File" menu of your application, and then click the "Maintenance" button (四).
2 Click the "Start" button of "Auto head cleaning".


3 Click the "OK" button to clean both the black print head and the color print head.


Cleaning the print head will begin.
The printer cannot perform other operations while cleaning the print head.

4 Click the "Start" button of "Test print head", and then click "Print" button on the confirmation dialog box to print a test page.
5 Check if the test page was printed cleanly.
If print quality is poor, return to step 2 and follow the procedures again.


Reference:If print quality is still poor, refer to Changing the Print Head.

## Changing the Print Head (part 1)

If print quality is poor, after cleaning the print head 5 times, the print head may be worn.
Ensure the printer is turned on before following the steps below on how to change the print head.

1
Open the front cover.
The carriage will automatically move to the center position.


Do not put your hands into the printer until the carriage stops at the center position. Doing so may hurt your hands. Do not try to move the carriage manually by force, you may damage the printer.

## Raise the print head latch.

Raise the latch until it comes to a complete halt.



## Changing the Print Head (part 2)

Remove the old black or color print head with the ink tank still inserted.
Lift it straight up to remove.


Remove the new print head from its protective case.


Do not touch the metal portion of the print head directly. Doing so may lead to improper printing or damage to the printer.

5 Insert the new print head.


Be careful not to damage the print head. If any part is damaged, the printer may not work properly.

## 6 Lower the print head latch.

Lower the latch until it is properly fixed into position.


## Changing the Print Head (part 3)

## Remove the ink tank(s) from the old print head and

 insert into the new print head.Reference:For details on inserting and removing the ink tank, see Changing Ink Tank.

## Close the front cover.

The carriage will return to its home position, and the ink will be fed to the print head.


To keep good print quality, keep all the ink tanks installed to the corresponding print head.

To maintain print quality after changing the print head, always align the print head.
Select "Print" from the "File" menu of your application, click the "Maintenance" button, and then click the "Start" button of "Print alignment patterns" to align the print head.


Reference: Aligning the Print Head

## 10 Print a test page by clicking the "Start" button of

 "Test print head".Make sure that the test page was printed clearly. Reference:Test Print Head

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## Aligning the Print Head (part 1)

Align the print head after installing or changing the print head, or if printed lines are not straight, or have blank spaces. Follow the steps below to align the print head.

1 Make sure that Letter sized paper is set in the tray.
2 Select "Print" from the "File" menu of your application, and then click the "Maintenance" button (囯).

3 Click the "Start" button of "Print alignment patterns".


4 Click the "Print" button.


The "Align print head" dialog box will appear, and a test chart will be printed.

5 Check the test chart results, and change the preferences to the best setting for each pattern.


1 Select a pattern sample for "Pattern A".
Look at the chart A on your test chart. Select the number under the pattern sample, in which $\square$ is located the closest to the center of the two vertically parallel lines.


## Aligning the Print Head (part 2)

2 Select a pattern sample for "Pattern B".
Look at the chart B on your test chart. Select the number under the pattern sample, in which $\square$ is located the closest to the center of the two horizontally parallel lines.


3 Select pattern samples for "Pattern C" and "Pattern D" respectively.
Look at the chart C and D on your test chart. Select the numbers under the pattern samples, which have the straightest lines.


6 Click the "OK" button in the "Align print head" dialog box.
The print head will align itself.

- If you cannot find any satisfactory pattern sample for each of "Pattern A" to "Pattern D" settings, select the best ones among the printed pattern samples, and then go back to step 3.
- The printer cannot perform other operations while aligning the print head.


## Keeping the Printer Clean

Here are a few points and cautions on cleaning the printer. Take the time to read this page before cleaning.

Turn off the power using the power button, then unplug the power cord.

Wipe the surface of the printer and the output tray. Wipe with a soft clean cloth without any loose threads.


- When wiping the surface of the printer, keep the front cover closed.
- Do not use cleaning agents containing ammonia, benzene, or thinner. Cleaning the printer with these substances will distort, degenerate or discolor the surfaces.


## 3 Open the front cover.

4 Check the inside of the printer. If you find stains of splashed ink, paper dust or dirt, wipe them out with a soft cloth.
If the dirt is sticky and hard to remove, wipe the dirt away with a firmly squeezed wet cloth after soaking it in water.


- When wiping inside the printer, be careful not to hurt yourself on projections inside it.
- Never wipe the portion around the print heads in the printer. Doing so will damage the print heads.




## Identifying Printer Problems

Click the headings listed below to get information for your printer problem. If you cannot solve your problem after checking everything on the list, please call 1-800-BE-SHARP.


## Paper is not Fed into the Printer (part 1)

If you encounter paper loading problems, refer to the check list below.
Reference:Paper Jam

CHECK1 Is there too much paper in the paper tray?
Paper tray can hold up to 150 sheets of 20 lbs . ( $75 \mathrm{~g} / \mathrm{m}^{2}$ ) plain paper. Be sure to keep total thickness of the loaded paper stack below $0.59^{\prime \prime}(15 \mathrm{~mm})$. The bypass tray can hold 1 sheet of paper only. If too much paper is loaded into the paper tray, paper supply problems will occur. Remove some of the paper from the paper tray.

CHECK2 Is the top of the following paper fed into the printer?
If overlapping pieces of paper are supplied to the printer, paper supply problems will occur. Fan the paper before loading into the printer.

CHECK3 Is the paper guide correctly adjusted to fit the paper?
If the width of the guide is set too narrow, a paper supply problem will occur. If the width of the guide is set too wide, printout will be skewed. Ensure that the guide is adjusted correctly to the paper.

CHECK4 Is the bypass tray and the paper knob set to the appropriate position for thick paper? When loading thick paper through the bypass tray, open the bypass tray until it reaches position 2 (the tray has two positions), and turn the paper knob to direction.

CHECK5 Is the loaded paper too thick or too thin? Use only paper that meets SHARP specifications for weight as shown below.

| Type | Specifications |
| :--- | :--- |
| Paper | 16 lbs. to 110 lbs . index <br> $\left(60 \mathrm{~g} / \mathrm{m}^{2}\right.$ to $\left.200 \mathrm{~g} / \mathrm{m}^{2}\right)$ |
| Banner | $20 \mathrm{lbs}\left(75 \mathrm{~g} / \mathrm{m}^{2}\right)$ |
| Envelope | 20 lbs. to 24 lbs. <br> $\left(75 \mathrm{~g} / \mathrm{m}^{2}\right.$ to $\left.90 \mathrm{~g} / \mathrm{m}^{2}\right)$ |
| Card | 110 lbs. index $\left(110 \mathrm{~g} / \mathrm{m}^{2}\right.$ to $\left.200 \mathrm{~g} / \mathrm{m}^{2}\right)$ <br> Max. thickness: $0.012^{\prime \prime}(0.3 \mathrm{~mm})$ |

CHECK6 Trouble feeding stiff envelope or heavy paper?
Feed them one at a time through the bypass.


## Paper is not Fed into the Printer (part 2)

## CHECK7 Is the printer on a flat surface?

The printer will not operate correctly when placed on an uneven surface. Use the printer on a flat surface.

CHECK8 Is the paper curled or folded?
Using curled or old paper may cause paper supply problems. The use of new paper is recommended.

CHECK9 Did you fan the paper before placing into the paper tray?
Fan the paper, and tap the edge against a flat surface to even the stack before loading into the printer.

CHECK10 Is the setting for printing cards or envelops correct?
When printing onto a card or envelope, insert it in portrait direction and make sure the correct side will be printed. When printing onto an envelope, be sure to turn the paper knob to ( $\triangle$ ) direction to adjust the setting to fit the thickness.
Reference:See "LOADING PAPER" in the Setup Guide and Operation Manual for details on inserting cards and envelopes.

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## Paper Jam

If a paper jam occurs, refer to the steps below to remove the paper.
Note When paper is jammed, the paper lamp will blink fast.

1 Open the jam cover located on the rear of the printer to remove the jammed paper.
Gently pull the jammed paper upward by holding both edges of the paper.


If you cannot remove the jammed paper from the jam cover, refer to the next step.

Take off the output tray to remove the jammed paper.


After removing the jammed paper, be sure to align the paper guide to the paper in the paper tray.

3 Close the jam cover, insert the output tray and press the paper button.
Make sure the paper lamp is not blinking.
If the jammed paper will not come out easily, try pulling in the opposite direction. Do not pull too hard as this may damage the printer mechanism. Do not re-use any sheets of paper that have jammed.

## Printer Inoperative

If the power lamp of the printer does not light up after being turned on, or all of the lamps keep blinking for a long time, refer to the steps below.

CHECK1 Is the power cord connected?
Securely plug the power cord into the power connector of the printer and the electrical outlet. The power cord might not be inserted correctly. After firmly plugging in the printer, verify whether or not the power lamp has come on.
Reference:For details on connecting the printer to an electrical outlet, see "CONNECTING THE POWER CORD", in the Setup Guide and Operation Manual.

CHECK2 Is the printer plugged into a working electrical outlet?
Connect some other appliance to the electrical outlet to verify whether the power source is supplying power.

## If all the lamps keep blinking

If all the lamps including the power lamp, the ink lamp, and the paper lamp are blinking, unplug the power cord from the printer, and then plug it again. If your printer still does not work, please call 1-800-BE-SHARP.

## Nothing Prints (part 1)

If nothing prints even when the power lamp is lit, please wait a few moments. The printer needs a longer time to process multicolored or intricate data. If the unit still does not print, refer to the check list below.

## Check the connection between the printer and computer.

CHECK1 Are the interface cables compatible with the printer and computer?
The interface cable compatible with this printer is a USB cable. If you are using any other type of interface cable, please replace it with a USB cable. Make sure that your computer supports a USB interface cable.

CHECK2 Is the interface cable connected securely?
Check if the interface cable is securely plugged into the connectors of the printer and computer.
Reference:See "CONNECTING THE INTERFACE CABLE" in the Setup Guide and Operation Manual for more details on interface connection.

CHECK3 Are any other USB peripherals being connected along with the printer?
If other USB peripherals are connected through the same hub, disconnect them to see if the problem still exists.

## Check your printer.

CHECK4 Is the front cover properly closed?
Check if the front cover of the printer is securely closed.

CHECK5 Are the ink tanks and the print heads installed properly?
Make sure the ink tanks and the print heads are installed properly.
Reference:See "INSTALLING THE PRINT HEADS AND INK TANKS" in the Setup Guide and Operation Manual for more details on inserting the ink tank or print head.

## CHECK6 Has a paper jam occurred?

Open the jam cover and remove the jammed paper. Reference:See Paper Jam, for more information on how to remove a paper jam.

## CHECK7 Can you print a test page?

Depress the paper button on the printer for a few seconds to print a test page. If you can print a test page, there may be a problem not with the printer but with the computer or interface cable.


## Nothing Prints (part 2)

## Check your computer.

## CHECK8 Is there enough computer memory or hard disk space?

To use this printer, you must have an adequate amount of hard disk space. If there is insufficient hard disk space, delete unnecessary files to increase the free space of the hard disk. If there is insufficient memory, close unnecessary applications to increase memory available for printing. If you are still unable to print, install more memory into your computer.

CHECK9 Is this printer selected properly through the Chooser?
Select "Chooser" from the Apple menu to connect this printer to your computer.
Select here


Reference:Using the Chooser

## CHECK10 Has the printer driver been installed properly?

Check if the printer driver has been installed, following the steps listed below.

1 Select "Chooser" from the Apple menu.
2 Make sure that the "AJ-1800/2000" printer icon is shown in the box.


If you cannot print even though the "AJ-1800/2000" printer icon appears in the box and the printer is connected to your printer properly, the printer driver may not have been installed correctly. In this case, you must uninstall the printer driver and then install the printer driver again.
Reference:Uninstalling the Printer Driver

## Uninstalling the Printer Driver

If you cannot print even after following the steps shown in Nothing Prints, you must uninstall the printer driver and install the printer driver again.

Reference:See "INSTALLING THE PRINTER DRIVER" in the Setup Guide and Operation Manual.

Before uninstalling the printer driver, close all applications.

Set the supplied CD-ROM into your computer, and then double-click the "Installer".

Click the "Next" button, click the "Install" button, and then click "Continue" button to scroll the screens of the installation program.

3 Switch the menu from "Easy Install" to "Custom Remove".

```
Easy Install Custom Install Custom Remove A
```

4 Select the item you want to delete in the box.
If you want to delete both "AJ-1800/2000 printer driver" and "Readme", select both items.

5 Click the "Remove" button.


- If a dialog box appears, which prompts you to confirm whether all the applications have been quitted, click the "Continue" button.
- If any of the files related to the printer driver has not been installed, or failed to be uninstalled with any reason, an alert message will appear and the uninstalling process will be canceled.
6 Restart your computer.
When the uninstalling completes, a confirmation dialog box will appear. Click the "Restart" button.



## Faint, Uneven or Smeared Print Output

## If the print output is faint or uneven

If print output is faint or uneven, refer to checks 1 to 3 below for possible remedies.
$\begin{array}{ll}\text { CHECK1 } & \begin{array}{l}\text { Has the paper been inserted into the printer } \\ \text { with the print side facing the right way? }\end{array}\end{array}$
Some types of paper have only one printable side. Print quality will suffer if paper is loaded in the tray with the print side facing the wrong way.

CHECK2 Has the printer driver been specified to suit both paper and the print job?
Open the setup screen of "Print" from the "File" menu of your application to make sure the following two points.
1 Is the paper specified in the "Print" dialog box the same as that loaded in the tray? Switch the menu shown on the screen to "Paper" to make sure that the value for the "Media Type" is the same one to the loaded paper.
2 Is the print quality setting in the "Print" dialog box set to "Draft"?
Ensure the selected print quality on the "Advanced" menu. If "Draft" is selected for "Print Quality", the print quality will be degraded even though the print speed will be high. Specify another setting, and then print again.

CHECK3 Did you get a clear result for your test page? Make sure that the test page can be clearly printed. To print the test page, select "Print" from the "File" menu of your application, click the "Maintenance" button, and then click the "Start" button of "Test print head".
Reference:Test Print Head

## If the print output is smeared

First turn the paper knob to the ( $\square$ ) direction and print again. If the print output is still smeared,
CHECK1 Is the paper too thick or too thin?
Only paper weighing from 16 lbs . to 110 lbs . index ( $60 \mathrm{~g} / \mathrm{m}^{2}$ to $200 \mathrm{~g} / \mathrm{m}^{2}$ ) can be used for printing.

CHECK2 Did you set sufficient margins in the paper settings of your application?
If the margins are set outside of the quality guaranteed area, smudges or smears may appear at the upper and lower edges of the paper.
Set margins from your application to fit within the quality guaranteed area. Reference:Quality guaranteed area

## Characters or Graphics are not Printed in Correct Position

If a document is printed skewed or partly off the paper, follow the steps listed below.

CHECK1 Is the paper size loaded in the tray the same as that specified in the printer driver?
Select "Page Setup" from the "File" menu of your application to ensure that the paper size selected for the "Paper Size" setting is the same to the size of the loaded paper. If the "Fit To Page" setting is activated, make sure that the value for "Output Paper" of the "Paper" menu is the same to the size of the loaded paper size.

CHECK2 Is the orientation of document setting correct?
Select the "Page Setup" from the "File" menu of your application to make sure that the desired orientation is selected for the "Orientation" setting.

CHECK3 Is the paper loaded correctly?
If a document is physically damaged as it is output or the image is skewed on the paper discard the jammed sheet, reinsert the paper supply and print again. Insert the paper so that there is no visible space between the paper and the paper guides.
Reference:See "LOADING PAPER" in the Setup Guide and Operation Manual for more details on inserting paper.

CHECK4 Did you correctly specify the margins for the application in use?
Check the layout of the document margins and the paper size settings for the application you are using. Also check if the print settings are specified correctly to suit the paper size.
Reference:Quality guaranteed area

## Printed Lines are not Straight, or Have Blank Spaces

When printed lines are not straight, or have blank spaces, follow the steps listed below.
1 Specify the print quality setting in the printer driver.
Select "Print" from the "File" menu of your application, and then switch the menu to "Advanced" to select "Sharp
Special", "Normal", "Best" for the "Print Quality" setting.
If you change the setting from "Draft" to any other option
and printed lines are still poor, go to step 2.
Reference:"Advanced" Menu Settings

## 2 Align the print head.

Select "Print" from the "File" menu of your application, click the "Maintenance" button, and then click the "Start" button of "Print alignment patterns" to align the print head.
Reference:Aligning the Print Head

## Unit does not Print in Color

If you are unable to print a document in color, refer to the check list below.
CHECK1 Is the printer driver set to the color print option?
Select "Print" from the "File" menu of your application, and then switch the menu to "Advanced" to select "Color" for the "Output Type" setting.
Reference:"Advanced" Menu Settings
CHECK2 Does the application you are using support color printing?
Some applications may not support color printing. Use an application that supports color printing.
For more information, see your application's manual or help file.

When execution time of a print job is slow, refer to the check list below.

## CHECK1 Does your computer have sufficient memory?

If you are using a number of applications, memory may not have enough space to process the print job. Try closing all other applications to increase the amount of memory available for printing. If printing is still excessively slow, you may have to add more memory into your computer.

CHECK2 Is your hard disk fragmented?
When data is frequently stored/deleted, the hard disk may become fragmented causing a reduction in printing speed. In this case it is recommended to defragment your hard disk. You may use a commercially available hard disk defragmenting tool.

CHECK3 Is the size of the print job too large?
It is recommended to reduce the size of the file by lowering the resolution of the print data.

## CHECK4 Has the background printing been activated?

If the background printing is activated, the print speed may be slower depending on the model of your Macintosh even though this function allows you to do other operations while printing. Please attempt to print after deactivating the background printing.

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[^0]:    Note

    - If lines are broken when printing with "Draft", change the setting to any other option.
    - Some of the settings may be disabled depending on the selected "Media Type".

